

2022 Property Values and Assessment Practices Report

Assessment Year 2021

Property Tax Division

March 1, 2022

Per Minnesota Statutes, section 3.197, any report to the Legislature must contain, at the beginning of the report, the cost of preparing the report, including any costs incurred by another agency or another level of government.

This report cost \$8,100.



March 1, 2022

To Members of the Legislature of the State of Minnesota:

I am pleased to present to you this report on property values and assessment practices in Minnesota, the 20th annual version of this report. Since 2012, this report has been combined with the annual report related to agricultural properties and Green Acres, satisfying the requirements of both Minnesota Statutes, section 273.1108, and Minnesota Laws 2001, First Special Session, chapter 5, article 3, section 92.

This report provides a summary of assessed property values and assessment practices in Minnesota, with an emphasis on market values for 2a agricultural and 2b rural vacant land properties, and Green Acres value methodology and determinations.

This report is based off assessment data finalized on January 2, 2021 and is therefore the first to include data based off assessment values set after the COVID-19 pandemic began in Minnesota. Due to the many factors that influence property values, we cannot solely attribute any trends in the data to the pandemic or its subsequent economic effects. We will continue to monitor and report the trends of assessment data as the pandemic evolves.

Sincerely,

Robert Doty
Commissioner
Minnesota Department of Revenue

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Introduction

This is the 20th annual report to the Minnesota Legislature on property tax values and assessment practices in the state. The Legislature mandated this report from the Minnesota Department of Revenue in 2001. Since 2012, this report has been combined with the annual report about agricultural properties and Green Acres, satisfying the requirements of both Minnesota Statutes, section 273.1108, and Minnesota Laws 2001, First Special Session, chapter 5, article 3, section 92.

As required by those mandates, this report contains:

- Information organized by major property types at statewide and various jurisdictional levels
- Recent market value trends
- Trend analysis of excluded market value
- Assessment quality indicators, including sales ratios and coefficients of dispersion for counties
- A summary of State Board Orders issued in 2021
- Green Acres value methodology and determinations
- Assessment and classification practices for class 2a agricultural and 2b rural vacant land property

This report provides an accurate description of the current state of property tax assessment and an overview of the department's responsibility to oversee the state's property tax assessment process. This report collects property value data for the purpose of monitoring and analyzing underlying value trends and assessment quality. This information and analysis informs government officials and the public about valuation trends within the property tax system.

Data Sources

The data for this report is gathered through data submissions from all 87 counties in Minnesota. Data used for the 2021 assessment year is preliminary, while data for previous years is complete.¹ Prior to the 2021 Assessment Practices Report, the historical preliminary data was used for consistency purposes, and therefore there may be small differences when comparing between reports.

Overview of the Minnesota Department of Revenue's Role

Property taxes are an important source of revenue for all local units of government in Minnesota, including counties, cities, townships, and school districts. The primary responsibility of the department's Property Tax Division is to ensure fair and uniform administration of, and compliance with, state property tax laws.

The Property Tax Division measures compliance with property tax laws through:

- The State Board of Equalization, which ensures that each property owner pay the correct amount – no more and no less. The Department of Revenue, acting as the State Board of Equalization, has the authority to increase or decrease assessed market values in order to bring about equalization.
- Promoting uniformity of administration among the counties to ensure that each taxpayer will be treated in the same manner regardless of where the taxpayer lives.

¹ Preliminary data is submitted in the PRISM 2 files, submitted on September 1 of the assessment year, while the final data is submitted in PRISM 3 files submitted on April 1 of the following year.

- Delivery of accurate and timely aid calculations, certifications, and actual aid payments.
- Education and information for county officials, including technical manuals, bulletins, answers to specific questions, and courses taught by division staff. These offerings provide county officials the support and training necessary to administer property tax laws equitably and uniformly.

The classification system is another part of the Minnesota Department of Revenue’s efforts to measure assessment quality. The sales ratio study and State Board of Equalization use property classifications to study value trends and accuracy of assessors’ valuations. For the purposes of this report, the department has focused on the following major classification types:

- Residential
- Seasonal recreational residential (cabins)
- Apartments
- Commercial
- Industrial
- Agricultural and rural lands

Estimated Market Values and the Sales Ratio Study

Minnesota law requires that all property be valued at its market value. For property tax assessment purposes, the market value is rounded to the nearest \$100. Assessors are required to determine the value of the land, the value of the structures and improvements to the land, and the resulting total market value.

The market value used for property tax purposes is the open market value, which is the price a property would sell for under typical, normal, and competitive conditions. It is also called the estimated market value (EMV). The most common method to determine EMVs is the comparable sales approach.

To evaluate the accuracy and uniformity of assessments within the state (and to ensure compliance with property tax laws), the Minnesota Department of Revenue conducts annual **sales ratio studies**. These studies measure the relationship between appraised values and the actual sales price.

Sales Used for the 2021 Assessment Year

The number of total sales and the number of good sales used for the 2021 assessment decreased between the 2019 and 2020 sales ratio study years. The data comes from sales that occurred October 1, 2019-September 30, 2020.

There were 138,971 Certificates of Real Estate Value (CRVs) received in the 2020 sales ratio study for the 2021 State Board of Equalization. Of these, 87,523 were considered good, current-year, open-market sales. While this represented more overall sales, there were slightly fewer good sales compared to the 2020 assessment (136,343 sales; 87,855 of them “good” sales).

Estimated market values increased for most major property types, while values for commercial properties and agricultural land decreased. Overall estimated market values for all properties increased by 4.4%, a slightly lower increase than in 2020.

Analysis of Sales Impacting Market Value Changes

Sales ratio studies measure the relationship between appraised values and the actual sales price. A sales ratio is the assessor's estimated market value of a property divided by its actual sales price:

$$\text{Sales Ratio} = \frac{\text{Assessor's Estimated Market Value}}{\text{Sales Price}} \quad \text{Equation 1}$$

For example, assume a home was valued by the assessor at \$100,000. The home sold for \$105,000. The sales ratio is calculated as follows:

$$\text{Sales Ratio} = \frac{\$100,000}{\$105,000} = 95\%$$

2021 Assessment Quality and Sales Ratio Studies on EMVs

The two primary measures of assessment quality are the sales ratio and the coefficient of dispersion (COD).² Assessment quality was similar between the 2019 and 2020 sales ratio studies (for assessment years 2020 and 2021) with some property types improving and others worsening. Sales ratios improved significantly for resorts, slightly for apartments and agricultural/rural vacant land, and decreased slightly for residential/seasonal and commercial/industrial properties. The COD was also varied but in different areas; residential/seasonal, resort, and agricultural/rural vacant all decreased (improved), while apartments and commercial/industrial increased (worsened). See Appendix A for the median sales ratios and CODs by property type.

- Sales ratios measure the **level of assessment** (how close appraisals are to market value on an overall basis). For the 2020 sales ratio study (for the 2021 assessment), the statewide median sales ratios for all property types were in the acceptable targeted range of 90 to 105%.
- Coefficients of dispersion measure the **uniformity of assessment** (how close individual appraisals are to the median ratio and each other). For the 2020 sales ratio study, the statewide coefficients were within the International Association of Assessing Officers' (IAAO) acceptable ranges; a higher COD indicates a lack of uniformity in assessments.³

State Board Orders

The State Board of Equalization issues corrective orders when the median sales ratio for a property type is outside the 90 to 105% acceptable range. Five counties were issued State Board Orders for the 2020 sales ratio study, compared to twelve counties for the 2019 study.

The Minnesota Department of Revenue's appraisal staff works with assessors to identify areas of concern for future assessments to help avoid State Board Orders. These issues usually fall into three categories:

1. Low sales ratios in areas with a history of few sales

² As a general rule, sales ratios and coefficients of dispersion are more accurate in classes with more sales activity because a larger sales sample is more likely to reflect the range of values for all properties in the jurisdiction.

³ The lower the COD, the more uniform are the assessments. A high coefficient suggests a lack of equality among individual assessments, with some parcels being assessed at a considerably higher ratio than others. Note that property types with smaller sample sizes tend to have lower sales ratios and higher CODs. This is an area of concern with smaller sales samples.

2. Sales ratios near the 90 to 105% range boundaries
3. Areas with uniformity concerns

(See Appendix A for a list of State Board Orders by county for the 2021 assessment and Appendix B for a detailed explanation of sales ratio studies used for these board orders.)

Statewide Change in Value by Property Type

Assessment 2021 in Comparison

Given that the 2021 assessment was the first after the COVID-19 pandemic was declared, this section compares the changes that occurred between the 2020 and 2021 assessments to the average changes between the 2016 and 2020 assessments.

We review sale numbers, classification changes, changes to the value of new improvements, and estimated market value (EMV). Sale numbers are collected from good eCRV submissions and can help show what types of properties were sold during the year.⁴ Class changes show when a property was changed from one type to another; this is usually due to the use changing from 2020 to 2021, but can also be due to law changes reclassifying a use from one property type to another. New improvements are the total value added by new construction and new improvements minus the value lost by demolition of improvements for each property type.

The primary data we will examine are two different types of EMV: aggregate EMV and steady EMV.

- Aggregate EMV is the aggregate of how much assessed value is classified and categorized as each property type. This can change based on values for that property increasing or decreasing, existing properties changing from one type to another, or construction or destruction of properties of that type.
- Steady EMV is the EMV **without** considering classification changes and does not factor in new construction or destruction of improvements.⁵ The steady EMV numbers are estimates that are the result of combining multiple types of data, and therefore are not as accurate as aggregate EMV.

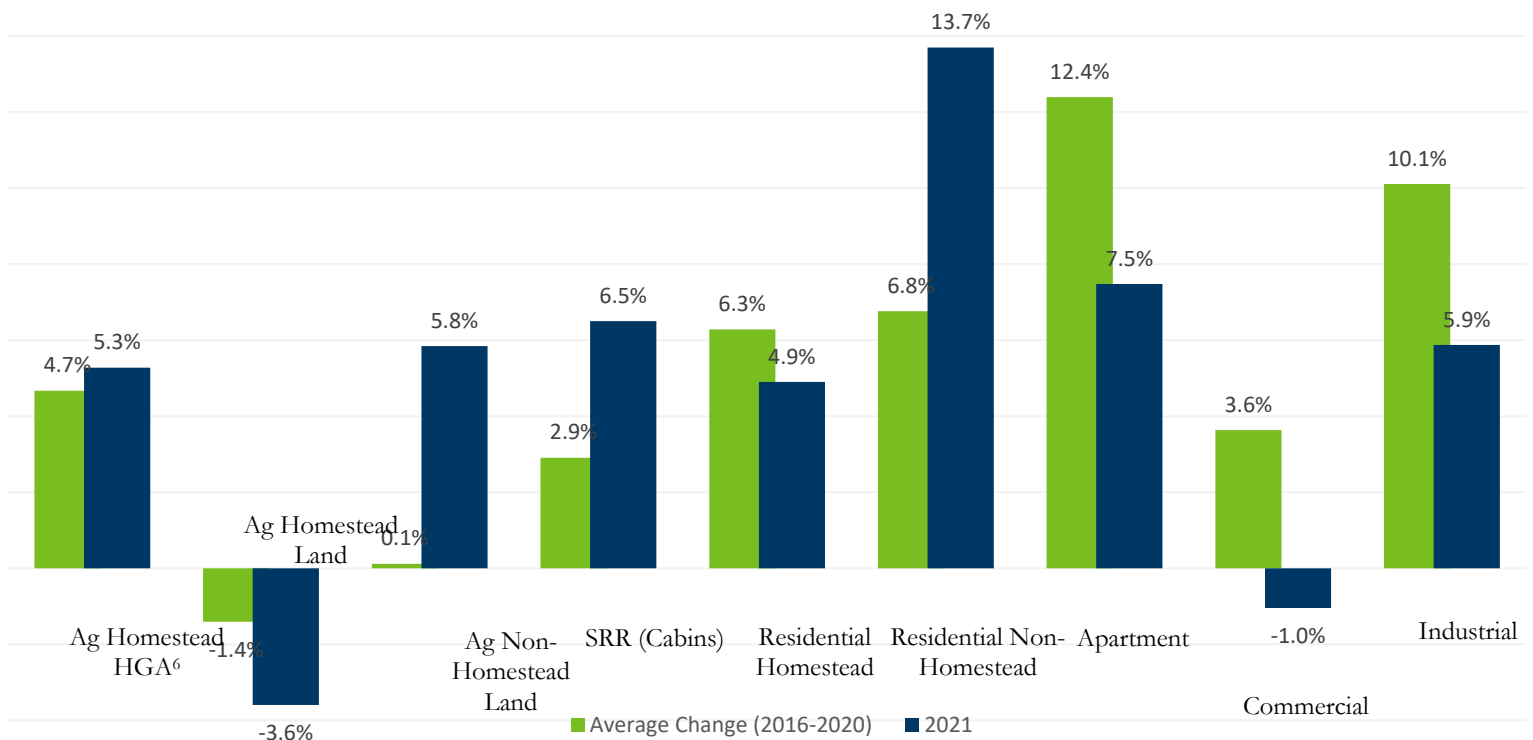
⁴ Given that values for the 2021 assessment were set on January 2, 2021, values would be most impacted by sales made in 2020.

⁵ Example: a residential home was valued at \$200,000 in AY2020. During 2020 they built a new garage. For AY 2021, the house was valued at \$220,000 and the garage valued at \$30,000, bringing the total value to \$250,000. Normal EMV would show a 25% increase (from \$200,000 to \$250,000), while steady EMV would show a 10% increase (the increased value of the house from \$200,000 to \$220,000).

Trends in 2021

Statewide, aggregate EMV increased between AY2020 and AY2021 by an almost identical percentage (4.4%) as it had between AY2019 and AY2020 (4.5%). However, different types of properties located in different regions make up the bulk of this change in comparison to later years. Chart 1 shows the percent change for aggregate EMV for 2021 compared to the average percent change between 2016 and 2020 for multiple different property types.

Percent Change in Statewide Aggregate EMV by Property Type



Aggregate EMV for industrial and apartment properties showed much less growth than the previous years' average, and commercial property EMV decreased on a statewide basis for the first time since 2012. Meanwhile, residential non-homestead, agricultural non-homestead, and cabins all had much higher increases than normal of aggregate EMV.

Statewide steady EMV shows a more complete picture of how certain property types' EMV changed. Chart 2 on the next page shows that the increased growth of residential non-homestead properties' aggregate EMV was not reflected in their steady EMV. This suggests that the large increases non-homesteaded properties' aggregate EMV were the result of classification changes and new improvements rather than values of non-homesteaded property increasing.

⁶ HGA stands for "House, Garage, and Acre", which represents the value of a house, garage, and immediate surrounding acre of land, not including farm buildings or structures.

Percent Change in Steady EMV by Property Type

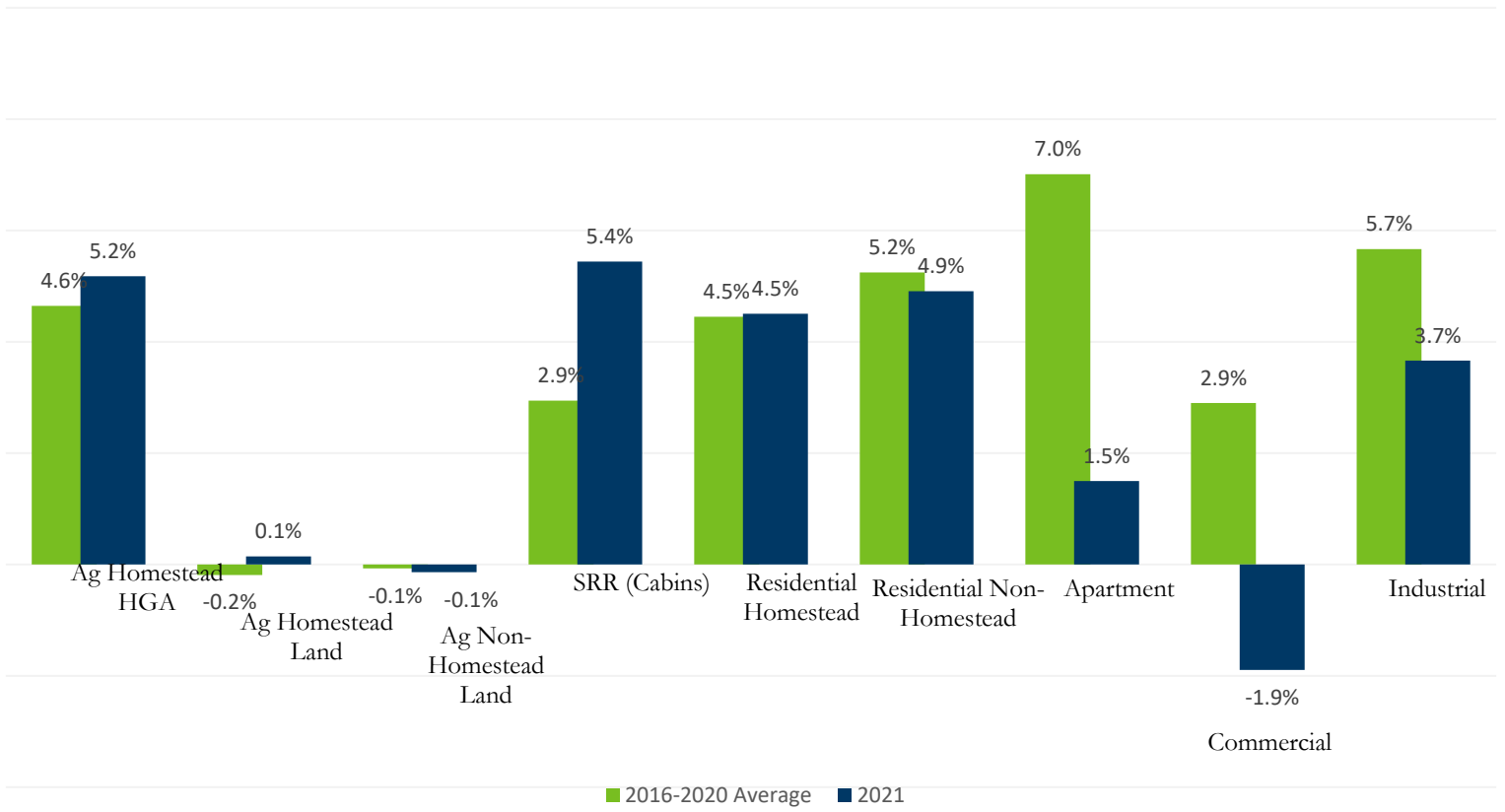


Chart 2

To examine regional trends, we divided EMV data into three regions:

- Twin Cities Metro Area
- Non-Metro Cities (all cities of the first and second class outside the seven-county Metro area)⁷
- Greater Minnesota

Table 1 shows the change in aggregate EMV regionally compared to the previous average change between 2016 and 2020. The averages show that over that year period, the seven-county Metro had approximately triple the growth in aggregate EMV as Greater Minnesota and double the growth of Steady EMV. Non-Metro Cities fell between those regions, with slightly less EMV growth than the Metro.

⁷ The 11 non-Metro cities include: Rochester, Duluth, St. Cloud, Moorhead, Mankato, Winona, Owatonna, Austin, Elk River, Faribault, and Northfield. (Part of Northfield falls into Dakota County; this is included in EMV totals for the non-Metro cities category.)

Percent Change in EMV (All Property Types)						
<i>(Average EMV is the Average Change from 2016-2020)</i>						
Region <i>(2021 Nominal EMV in millions)</i>	Average Aggregate EMV	2021 Aggregate EMV	Difference	Average Steady EMV	2021 Steady EMV	Difference
Twin Cities Metro Area <i>(\$452,161)</i>	6.8%	4.5%	-2.3%	4.7%	2.7%	-2.1%
Non-Metro Cities <i>(\$47,168)</i>	5.9%	5.2%	-0.7%	4.1%	3.3%	-0.8%
Greater Minnesota <i>(\$340,689)</i>	2.6%	4.0%	+1.4%	2.2%	2.7%	+0.5%

Table 1

Comparing the previous averages of both aggregate and steady EMV, the general trend was that the highest percentage increases were in the Metro, followed closely by in Non-Metro Cities. Value increases in Greater Minnesota then were two to three times less than the Metro.

Comparing these averages to the changes in EMV for 2021, we see that this previous year looked different than before in a few ways:

- Both aggregate and steady EMV decreased in the Metro area compared to their averages
- Both aggregate and steady EMV decreased in Non-Metro Cities compared to their averages, though at a lesser magnitude as the Metro
- Both aggregate and steady EMV increased in Greater MN compared to their averages, though not to the same magnitude as the changes in the Metro, and especially smaller in Steady EMV

The result of these changes compared to the average resulted in a year where Non-Metro Cities saw the greatest increases in both aggregate and steady EMV, while the Metro and Greater Minnesota had similar increases in aggregate EMV and the same increases in steady EMV. This trend repeats itself for multiple types of property in the next section of the report. While we cannot draw any definitive conclusions about what caused these changes, we can continue to monitor regional trends in the future to see if this is an outlier or becomes a more common trend.

Agricultural Land

Agricultural land includes both agricultural and rural vacant land and is almost entirely located in Greater Minnesota (95% of total market value). Therefore, instead of looking at regional differences, it is more useful to examine the differences between homestead and non-homestead agricultural land rather than regional differences.

Both agricultural homestead and agricultural non-homestead steady EMV in Table 2 show little change over the years of the property value of the land. Both homesteaded and non-homesteaded land decreased

between 0.3% and 0.7%, with an increase of 0.9% in 2019 bringing the average closer to 0. The changes in 2021 are therefore similar to the prior averages, and suggest that there have not been long-term increases or decreases to assessment values of otherwise unchanged parcels.

Percent Change in Statewide Agricultural Land EMV						
<i>(Average EMV is the Average Change from 2016-2020)</i>						
Land Type (2021 Nominal EMV in millions)	Average Aggregate EMV	2021 Aggregate EMV	Difference	Average Steady EMV	2021 Steady EMV	Difference
Agricultural Homestead Land <i>(\$78,250)</i>	-1.4%	-3.6%	-2.2%	-0.2%	0.1%	+0.3%
Agricultural Non- Homestead Land <i>(\$52,859)</i>	0.1%	5.8%	+5.7%	-0.1%	-0.1%	0%
All Agricultural Land <i>(\$131,109)</i>	-0.8%	0.0%	+0.8%	-0.1%	0.0%	+0.1%

Table 2

While steady EMV has hovered around 0%, aggregate EMV has been more variable. Table 3 shows the past six years of aggregate EMV and acreage data for both homesteaded and non-homesteaded agricultural land, as well as the yearly percentage change for both. The table shows that agricultural homestead EMV has decreased every year except 2019, while non-homestead land has increased in all years except 2020, even if it did at a relatively low rate. 2021 was a more extreme year of this trend; non-homestead land saw large increases in both EMV and acreage, while homestead land saw decreases in EMV and acreage.

Aggregate Market Value of Agricultural Land (*in Millions*) and Acreage

Land Type	2016	2017	2018	2019	2020	2021
Agricultural Homestead Land EMV	\$85,957	\$82,812 -3.7%	\$81,352 -1.8%	\$82,040 +0.8%	\$81,170 -1.1%	\$78,250 -3.6%
Agricultural Homestead Land Acreage	19,160,546	19,173,212 +0.1%	19,003,992 -0.9%	19,801,464 +4.2%	18,686,333 -5.6%	18,112,624 -3.1%
Agricultural Non-Homestead Land EMV	\$49,715	\$48,826 -1.8%	\$49,243 +0.9%	\$49,717 +1.0%	\$49,939 +0.4%	\$52,859 +5.8%
Agricultural Non-Homestead Land Acreage	13,909,650	14,115,267 +1.5%	14,264,577 +1.1%	14,497,009 +1.6%	14,369,833 -0.9%	15,340,491 +6.8%

Table 3

In 2021, almost \$3 billion in agricultural homestead land changed to non-homestead agricultural land, while only \$500 million changed from non-homestead to homestead. This is reflected in acreage and aggregate EMV changes in 2021. Charts 3 and 4 indicate that historically, while the change in acreage somewhat correlates with change in EMV for non-homestead land, homesteaded land does not. Regardless, the year-over-year decrease of homesteaded agricultural land and increase in non-homesteaded land will cause a shift in tax base, as non-homesteaded land has a higher classification rate than homesteaded land. This also has the potential to affect programs such as Green Acres, as most homesteaded land qualifies for Green Acres while non-homesteaded land must meet other conditions.

Homestead Change in EMV and Acreage

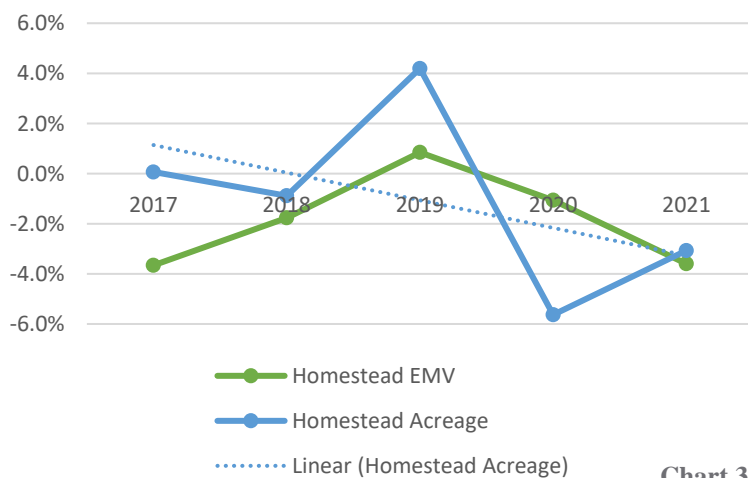


Chart 3

Non-Homestead Change in EMV and Acreage

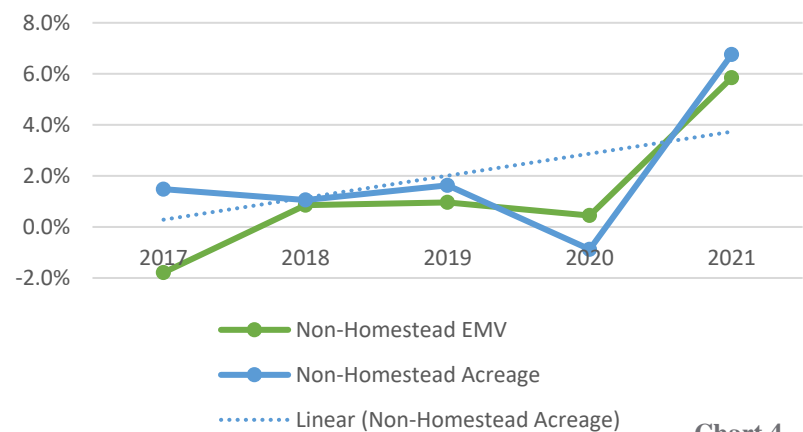


Chart 4

Agricultural homestead HGA increased by slightly more than the previous average for both steady (4.6% to 5.2%) and aggregate EMV (4.7% to 5.3%). The steady EMV increase is very similar to that of other residential property in Greater Minnesota. The high increase to steady EMV in addition to the lack of classification changes away from agricultural homestead HGA, which led to increased aggregate EMV.

Apartments

Percent Change in Apartment EMV

(Average EMV is the Average Change from 2016-2020)

Region (2021 Nominal EMV in millions and % of total regional EMV)	Average Aggregate EMV	2021 Aggregate EMV	Difference	Average Steady EMV	2021 Steady EMV	Difference
Twin Cities Metro Area (\$46,493; 10.3 %)	13.3%	7.5%	-5.8%	7.7%	1.1%	-6.6%
Non-Metro Cities (\$4,470; 10.1%)	10.7%	7.4%	-3.3%	4.8%	3.6%	-1.2%
Greater Minnesota (\$5,072; 1.5%)	7.0%	7.0%	0%	3.3%	3.0%	-0.3%

Table 4

Apartment aggregate EMV increased by less than 10% statewide for the first time since 2013, mainly due to a lower increase in the Metro area. The biggest difference was in Metro steady EMV which only increased by 1.1% compared to more recent growth above 7%. This shows a virtual freeze of Metro apartment values in comparison to previous years, which has a notable effect on the tax base given that apartments make up around 10% of the total EMV of the Metro area. A large amount of new construction prevented aggregate EMV from increasing even less. Apartments made up \$2.4 billion out of \$6.8 billion (36%) of all net new improvements constructed in the Metro area, which is the largest proportion of any property type.

Following the regional trends, Non-Metro Cities had lower-than-average increases in both aggregate and steady EMV, but not to the extent of the Metro, while Greater Minnesota had no change in aggregate EMV and little change in steady EMV when compared to previous averages.

Residential Property

Residential properties represent a plurality of the market value of all three regions, and a supermajority of market value for the Metro and Non-Metro Cities. Therefore, the changes in residential property, especially residential homestead, greatly affect the tax base of all of Minnesota.

Residential Proportion of Area's Total EMV by Property Type for Assessment 2021

Total EMV (in millions)

Property Type	Twin Cities Metro Area	Non-Metro Cities	Greater Minnesota
Homestead	61.2% — \$276,539	57.2% — \$26,975	35.3% — \$120,234
Non-Homestead	9.7% — \$44,000	10.7% — \$5,055	4.8% — \$16,513

Table 5

Percent Change in Residential Steady EMV

(Average EMV is the Average Change from 2016-2020)

Region	Average Homestead EMV	2021 Homestead EMV	Difference	Average Non-Homestead EMV	2021 Non-Homestead EMV	Difference
Twin Cities Metro Area	4.4%	4.1%	-0.3%	5.6%	4.7%	-0.9%
Non-Metro Cities	4.6%	4.9%	+0.3%	4.7%	5.4%	+0.7%
Greater Minnesota	4.7%	5.3%	+0.6%	4.5%	5.5%	+1.0%

Table 6

Examining the changes within residential properties shows the benefits of examining both aggregate and steady EMV. steady EMV shows that while the 2021 regional trend held true (Greater Minnesota properties did better compared to average, Metro did worse, and Non-Metro Cities in between), all the differences were within 1% of the average and were within the range of increases we have seen over those four years. This suggests that assessed residential values stayed relatively consistent in 2021, despite the high number of sales in the year before the assessment; 2020 saw a 6% increase in the number of residential sales compared to the previous four-year average

Percent Change in Residential Aggregate EMV

(Average EMV is the Average Change from 2016-2020)

Region (2021 Nominal EMV in millions and % of total regional EMV)	Average Homestead EMV	2021 Homestead EMV	Difference	Average Non-Homestead EMV	2021 Non-Homestead EMV	Difference
Twin Cities Metro Area (\$320,539; 70.9%)	6.4%	4.5%	-1.9%	7.2%	11.8%	+4.6%
Non-Metro Cities (\$32,030; 67.9%)	6.0%	5.0%	-1%	6.1%	12.4%	+6.3%
Greater Minnesota (\$136,747; 40.1%)	6.1%	5.7%	-0.4%	5.7%	19.6%	+13.9%

Table 7

Homestead aggregate EMV held to the regional trends; all regions increased at lower percentages than the previous years' average, and 2020 increases had been even lower for Metro and Non-Metro Cities. The biggest change from the averages come in non-homestead values; these double-digit increases are the largest for any region since 2007. The shift is especially notable for Greater Minnesota, with the increase in non-homestead EMV more than tripling the previous average. Even so, residential non-homestead properties still only make up less than 5% of the total market value for the region, which is less than residential homestead, agricultural land, and cabins. It is also important to note that some of these

statewide increases are due to a law change that reclassified short-term rental properties as 4b(1) residential non-homestead; close to \$249 million in market value changed from commercial⁸ to residential non-homestead, \$224 million of which located in Greater Minnesota. However, this number is overshadowed by the \$5 billion in market value that shifted from residential homestead to non-homestead, 20 times the amount. This is partially offset by \$3.2 billion in market value shifting from non-homestead to homestead, but still results in large increases of non-homestead aggregate EMV. These increases expand the tax base overall, as non-homestead property has a higher classification rate.

Overall, residential property saw minor changes in steady EMV compared to previous averages, while aggregate EMV changed substantially. More research is required to draw conclusions about why these changes occurred. However, we can continue to monitor the data and determine if the changes are an anomaly or a new trend.

Seasonal Recreational Residential Property

Percent Change in Seasonal Recreational Residential EMV						
<i>(Average EMV is the Average Change from 2016-2020)</i>						
<i>(2021 Nominal EMV in millions)</i>	Average Aggregate EMV	2021 Aggregate EMV	Difference	Average Steady EMV	2021 Steady EMV	Difference
Statewide <i>(\$30,683)</i>	2.9%	6.5%	+3.6%	2.9%	5.4%	+2.6%

Table 8

Seasonal Residential Recreational Non-Commercial property, often referred to as cabins, saw increases in both aggregate and steady EMV when compared to their previous statewide averages⁹, while the 6.5% increase in aggregate EMV was the largest since 2007. The number of sales leading up to the 2021 assessment were also high, with the approximately 5,300 sales constituting a 37% increase compared to the previous four year average. The difference between the Steady EMV and Aggregate was mostly due to new improvements: \$773 million of cabin value changed classification to something else in 2021, compared to \$654 million of value changing classification to cabins. Cabins overall saw some of the largest increases in steady EMV compared to average across all property types, which again matches regional trends of higher-than-average increases in steady EMV for property located in Greater Minnesota.

Commercial/Industrial Property

Starting with the 2020 Assessment Practices report, commercial property has been reviewed independently from industrial property due to trends showing commercial property EMV is increasing at a much lower rate than industrial property EMV.

⁸ Department of Revenue had issued guidance in 2019 for assessors to classify these properties as 3a commercial.

⁹ Because 95% of Cabin value is located in Greater MN, looking at each region individually provides little context.

Properties that are considered commercial include office buildings, retail stores, malls, hotels, banks, restaurants, and service outlets. We also include seasonal recreational commercial properties within the commercial section. Industrial properties include property used for manufacturing, warehouses, and distribution facilities.

Commercial Property

Percent Change in Commercial EMV

(Average EMV is the Average Change from 2016-2020)

Region <i>(2021 Nominal EMV in millions and % of total regional EMV)</i>	Average Aggregate EMV	2021 Aggregate EMV	Difference	Average Steady EMV	2021 Steady EMV	Difference
Twin Cities Metro Area <i>(\$48,485; 10.7%)</i>	4.1%	-1.8%	-5.9%	3.4%	-2.8%	-6.2%
Non-Metro Cities <i>(\$7,858; 16.7%)</i>	2.9%	1.8%	-1.1%	2.8%	-0.8%	-3.6%
Greater Minnesota <i>(\$14,004; 4.1%)</i>	2.4%	0.2%	-2.2%	1.1%	0.8%	-0.3%

Table 9

Commercial property saw some of the largest decreases of all property types from their previous averages and saw a statewide decrease in both aggregate and steady EMV for the first time since 2012. Much of this is due to decreases in EMV in the Metro area, which contains over two thirds of statewide commercial EMV. The Metro's aggregate EMV was slightly higher due to over \$600 million in net new improvements, which balanced out the \$170 million of previously commercial property that changed class in 2021. New improvements in Non-Metro Cities meanwhile made up over 20% of all net new improvements in that region, compared to 8.8% and 6.6% for the Metro and Greater Minnesota, respectively. This helped aggregate EMV increase despite a decrease in steady EMV. In Greater Minnesota, there was a larger amount of classification changes away from commercial properties (partly due to the new law regarding short-term rental properties) which gives some indication as to why aggregate EMV was lower than steady EMV.

The decrease in steady EMV in both the Metro and Non-Metro cities is telling, as it shows that assessed values for established commercial properties dropped after generally having consistent increases in previous years. Changes to commercial property are important in their effect on the tax base, as they make up over 10% of regional EMV for both regions, have a higher classification rate, and also pay into the state general tax. Commercial properties also saw a large number of sales, with the 11 months of sales in 2021 surpassing yearly totals in 2020 and reaching similar levels as in 2019.

Industrial Property

Industrial property saw a lower increase than average in aggregate EMV across all regions. This increase was still significantly greater than that of commercial EMV, despite the variability in values this year. Industrial aggregate EMV is the only property type we examine where Non-Metro Cities see the lowest difference between 2021 and their previous averages in comparison to other regions. This partly could be due to the fact that industrial property has a lower statewide EMV to begin with, and Non-Metro Cities are by far the smallest region, so changes are likely to be more pronounced.

Percent Change in Industrial EMV

(Average EMV is the Average Change from 2016-2020)

Region <i>(2021 Nominal EMV in millions and % of total regional EMV)</i>	Average Aggregate EMV	2021 Aggregate EMV	Difference	Average Steady EMV	2021 Steady EMV	Difference
Twin Cities Metro Area <i>(\$21,502; %)</i>	10.4%	5.9%	-4.5%	7.2%	4.5%	-2.7%
Non-Metro Cities <i>(\$1,563; %)</i>	12.4%	4.2%	-8.2%	1.6%	1.4%	-0.2%
Greater Minnesota <i>(\$4,784; %)</i>	8.4%	6.2%	-2.2%	0.8%	0.9%	+0.1%

Table 10

While the changes to steady EMV are more in-line with what we have seen for other regions, the large gap between average steady EMV and aggregate EMV for each region is significant. This suggests that much of historical increases in aggregate EMV are due to new construction or classification changes rather than increases to assessed values of established industrial property. We do see a greater amount of value changing classification to industrial than away from it, and new construction in proportion to the amount of market value of industrial property.¹⁰

¹⁰ Industrial property makes up 3.3% of statewide market value and 4.2% of net new improvements

Greater Minnesota, it is possible that there will be changes due to the differences in the 2021 assessment compared to previous years, but that we will not see them until future reports.

Open Space deferrals increased slightly, returning to average growth after increasing by over 16% in 2020. Open Space deferrals may also be affected by ongoing development pressure, but otherwise generally has small increases year over year.

Green Acres and Rural Preserve deferrals increased in 2021.

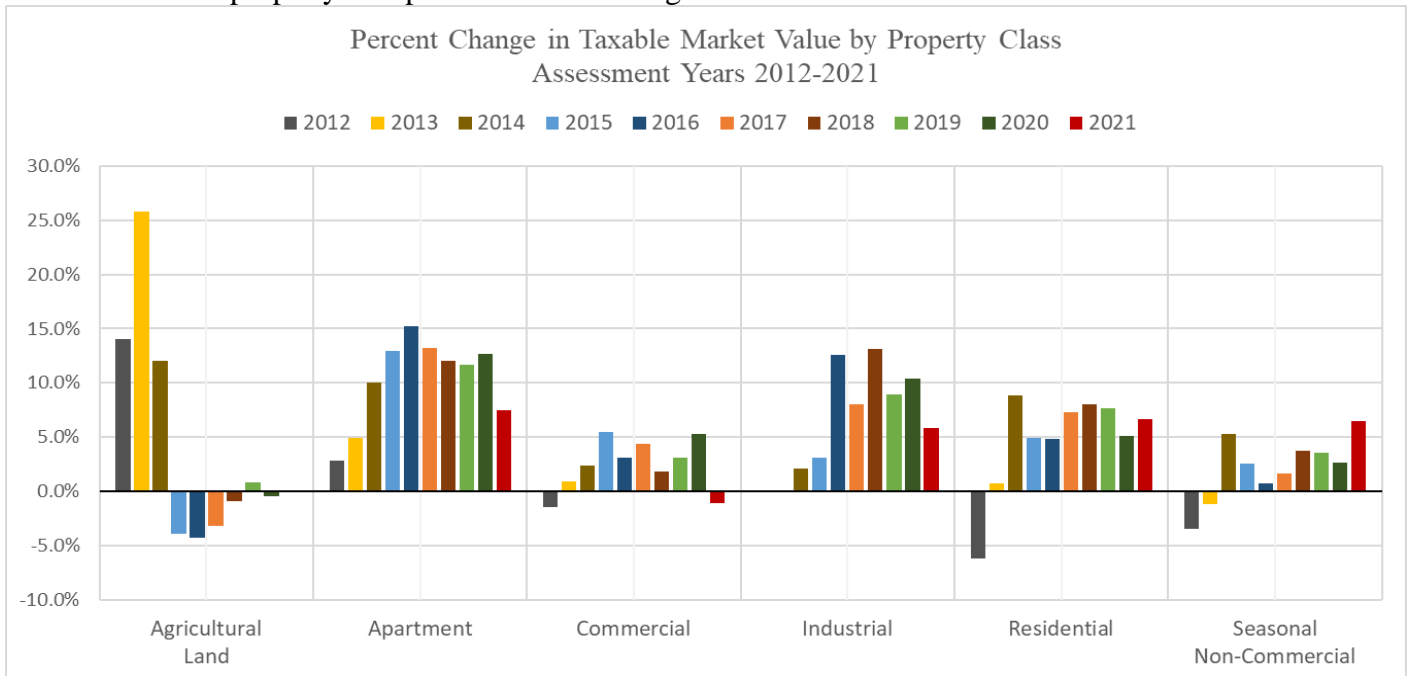
Value Exclusions and Deferrals

All Values in Millions

Exclusion/Deferral	2020 Value	2021 Value	% Change
Homestead Market Value Exclusion	\$22,454	\$20,920	-6.8%
Veterans with a Disability Exclusion	\$3,486	\$3,672	5.4%
Green Acres	\$2,753	\$2,759	0.2%
Open Space	\$713	\$732	2.6%
Rural Preserve	\$589	\$613	4.1%
Plat Law	\$423	\$450	6.3%

Table 11

After including the various exclusions, deferrals, and special valuations, taxable market values increased for all classes of property except commercial and agricultural from 2020-2021.



Green Acres and Rural Preserve

Green Acres and Rural Preserve are property tax deferral programs that help keep farm property values from increasing due to non-agricultural influences such as development or recreational uses on nearby properties. The taxable market value of qualifying farm land is based on its agricultural use, rather than its highest and best use (which may be impacted by sales of nearby land for development or speculation).

The Department of Revenue determines a Green Acres value for tillable and non-tillable class 2a agricultural land for each county to reflect market and agricultural conditions. Counties use the Green Acres value when calculating property taxes. Rural Preserve provides a similar benefit for class 2b rural vacant land that is part of a farm. (See Appendix D for details about Green Acres and Rural Preserve values for the 2021 assessment.)

Green Acres Values: 2021 Assessment Year Impact

For assessment year 2021 (taxes payable 2022), statewide taxable values of agricultural land stayed constant, while the amount of value deferred under Green Acres decreased by 0.2%. Data from the last three years is shown in Table 12.

The total taxable market value of properties enrolled in Green Acres increased to the highest value since 2017 despite no increase in the statewide value of agricultural aggregate EMV. This is potentially due to an increase in enrolled acreage between 2020 and 2021, though there are still fewer enrolled acres currently than there were in 2018. This is somewhat significant in that homesteaded agricultural acreage dropped while non-homesteaded acreage increased, suggesting that non-homesteaded agricultural land is increasingly qualifying for Green Acres. Deferred values continue to increase, which reflects the continued increase in value of other property types and development pressure on agricultural land. Deferred values increased less than the proportional taxable values, leading to a small decrease in the percentage of land deferred. This could be because AY 2021 agricultural land values were flat rather than decreasing, while other types of property saw lesser increases in EMV than previous years.

Green Acres and Rural Preserve Deferrals			
<i>All Values in Millions</i>			
Green Acres	2019	2020	2021
Taxable Value	\$12,104	\$11,972	\$12,129
Deferred Value	\$2,682	\$2,753	\$2,759
Percent Deferred*	18.1%	18.7%	18.5%
Rural Preserve	2019	2020	2021
Taxable Value	\$692	\$788	\$781
Deferred Value	\$660	\$589	\$613
Percent Deferred*	48.8%	42.7%	44.0%

* *Percent Deferred = Percentage of Total EMV (Deferred Value + Taxable Value) that received deferral*

Table 12

Rural Preserve had a small decrease in taxable value and an increase in deferred value, resuming the upward trend in deferred value after a sharp drop in 2020. Still, the 44% deferred value is the lowest since the same percent was deferred in 2016. The decrease in taxable value matches up with a reduction in enrolled acres, despite an increase in overall market value.

Tax Distribution

Minnesota's property tax system has several components including classification, valuation, and special programs that reduce taxable value, credits, and different levies. These components determine which properties will pay a greater or lesser share of taxes.

Taxable Value

The nature of Minnesota's property tax system is that if the taxable value of one class of property decreases, it pays a smaller share of the overall tax burden and other property classes pay a larger share.

For example, agricultural and homesteaded properties have typically received preferential property tax treatment through classification rates and programs – such as Green Acres and the Homestead Market Value Exclusion – and through homestead credits and school bonding credits.

Conversely, commercial/industrial properties typically pay a greater share of taxes than residential or agricultural properties of equal value due to a higher class rate, lesser eligibility for special programs, and being subject to additional levies such as the state general tax. (See Appendix C for details about the classification rates used for the 2021 assessment.)

The impact of these components is clear when reviewing tax liability and effective tax rates. Based on preliminary estimates from the 2021 assessment year (taxes payable 2022):

- Agricultural property and rural vacant land represent a little less 16% of taxable property value and pay more than 5% of net property taxes statewide. (See Table 12, next page.)
- Residential property makes up more than half of all market value and pays over half of all net property taxes.
- Commercial property accounts for around 8% of market value and pays about 19% of property taxes.
- Industrial property accounts for about 3% of market value and pays about 8% of property taxes.

These numbers are affected by where the majority of each property type is located and the surrounding tax base, but they still provide insight into how different classifications contribute to the tax base.

2021 Trends

Net Tax Liability

Table 13 shows the net tax and tax share for each major property class. The numbers in italics represent the change in the market value and net tax share from last year.

Net Tax Liability and Tax Share by Property Class
Assessment Year 2021, Taxes Payable 2022 (Preliminary Estimates)

Properties by Class	Market Value (Millions)	Net Tax (Millions)	Market Value Share	Net Tax Share
Agricultural/Rural Vacant	\$127,719	\$636	15.8% (-0.7%)	5.4% (-0.2%)
Residential	\$465,955	\$6,138	57.5% (+1.1%)	52.3% (+1.2%)
Apartments	\$56,293	\$891	6.9% (+0.1%)	7.6% (+0.3%)
Seasonal (Non-Commercial)	\$30,675	\$291	3.8% (+0.1%)	2.5% (+/- 0%)
Commercial	\$68,144	\$2,188	8.4% (-0.5%)	18.6% (-1.0%)
Industrial	\$27,846	\$906	3.4% (+/-0%)	7.7% (+0.1%)
All Other	\$34,211	\$680	4.2% (-0.1%)	5.8% (-0.5%)
Total Real and Personal	\$810,843	\$11,730	100.0%	100.0%

Table 13 Please note that due to rounding, there may be some small differences between the listed totals and sums of all classes.

Agricultural and Residential Property

The market value share of agricultural property continued to decrease, as it has since 2014. Last year's decrease of 0.7% is one of the smaller decreases in the past four years, as the market share has dropped from almost 21% to just under 16% since 2017. This tracks with agricultural land not increasing in aggregate EMV while other property types saw increases, even if they were lower than normal. The net tax share then dropped proportionally.

Residential property saw an increased market value share that was larger than last year and saw a large net tax share increase after it had dropped between 2019-2020. Residential property already has such a large market share that even moderate increases in aggregate EMV result in a larger market value share. This is especially true this year when other property types that normally have large EMV increases saw less growth. The net tax share increased based on both the increase in market value share, as well as the decrease or smaller increase in market value share of properties that pay a higher classification rate (such as commercial and apartment properties).

Commercial and Industrial Property

For commercial property, market value share dropped following the decrease in aggregate EMV, especially compared to other property types who still saw increases in EMV. Net tax share subsequently dropped, which is especially significant given that commercial property pays the second highest share of net tax, and residential property saw their share of net tax increase. Industrial property market value share and net tax share were virtually unchanged.

Appendix A – Summary of 2020 State Board Orders

Sales Ratios and Coefficients of Dispersion

Property Type	Final Adjusted Median Ratio		Coefficient of Dispersion		Sample Size	
	2019	2020	2019	2020	2019	2020
<i>State Board Year</i>	<i>2019</i>	<i>2020</i>	<i>2019</i>	<i>2020</i>	<i>2019</i>	<i>2020</i>
Residential/Seasonal	94.94	94.59	8.24	8.05	76,995	76,297
Apartment	95.08	95.29	11.63	11.7	553	496
Commercial/Industrial	95.27	94.17	15.32	16.01	1,696	1,424
Resorts	96.58	99.87	27.61	21.86	24	33
Agricultural 2a / Rural Vacant 2b	96.45	96.73	20.56	19.82	3,587	3,736

Table 14

The International Association of Assessing Officers (IAAO) recommends trimming the most extreme outliers from the sample before calculating the coefficient of dispersion (COD). The trimming method used by the sales ratio excludes sales outside of an interquartile range determined by jurisdiction. This eliminates a few extreme sales that would distort the COD. Per the IAAO, the acceptable ranges for the COD are:

Coefficient of Dispersion (COD) Acceptable Ranges by Property Type

Property Type	Acceptable COD Range
Newer, homogenous residential properties	10.0 or less
Older residential areas	15.0 or less
Rural residential and seasonal properties	20.0 or less
Income producing: larger, urban area	15.0 or less
smaller, rural area	20.0 or less
Vacant land	20.0 or less
Depressed markets	25.0 or less

Table 15

State Board Orders by County for the 2021 Assessment Year

County	Assessment District	Class	Percent Increase	Percent Decrease
Clearwater	Township of Copley	Residential Land and Structures; Seasonal Residential Recreational Land and Structures	5%	
	City of Bagley	Residential Land and Structures; Seasonal Residential Recreational Land and Structures	5%	
	City of Clearbrook	Residential Land and Structures; Seasonal Residential Recreational Land and Structures	5%	
Kittson	City of Hallock	Residential Land and Structures; Seasonal Residential Recreational Land and Structures	Complete Reassessment for 2022 Assessment	
	City of Karlstad	Residential Structures > \$90,000 EMV Only; Seasonal Residential Recreational Structures > \$90,000 EMV Only		10%
Mahnomen	Township of Litle Elbow	Residential Land and Structures on Tulaby Lake; Seasonal Residential Recreational Land and Structures on Tulaby Lake	10%	
	Township of Litle Elbow	Residential Land and Structures on South Twin Lake; Seasonal Residential Recreational Land and Structures on South Twin Lake	15%	
	Township of Twin Lakes	Residential Land and Structures on South Twin Lake; Seasonal Residential Recreational Land and Structures on South Twin Lake	15%	
	Township of Twin Lakes	Residential Land and Structures on North Twin Lake; Seasonal Residential Recreational Land and Structures on North Twin Lake	10%	
	Township of Twin Lakes	Residential Land and Structures on Roy Lake; Seasonal Residential Recreational Land and Structures on Roy Lake	10%	

County	Assessment District	Class	Percent Increase	Percent Decrease
Otter Tail	Township of Dunn	Residential Land and Structures Off-Water; Seasonal Residential Recreational Land and Structures Off-Water	10%	
Polk	City Fertile	Residential Land and Structures; Seasonal Residential Recreational Land and Structures	5%	
	City of Fosston	Residential Land Only; Seasonal Residential Recreational Land Only	5%	

Appendix B – Sales Ratio Studies

12-Month Study

The 12-month study is mainly used to determine State Board of Equalization Orders. The 12 months encompass the period from October 1 of one year through September 30 of the following year. The dates are based on the dates of sale as indicated on the Certificate of Real Estate Value (CRV).

CRVs are filled out by the buyer or seller whenever property is sold or conveyed and filed with the county. The certificates include the sales price of the property, disclosure of any special financial terms associated with the sale, and whether the sale included personal property. The actual sales price from the CRV is then compared to what the county has reported as the market value.

In areas with few sales, it is very difficult to adjust for inflation or deflation because the sales samples are used to develop time trends. For example, based on an annual inflation rate of 3% (.25% monthly), if a house was purchased in August 2020 for \$200,000, it would be adjusted to a January 2021 value of \$202,500, or the sales price would be adjusted upward by 1.25% for the 5-month timeframe to January.

The State Board of Equalization orders assessment changes when the level of assessment (as measured by the median sales ratio) is below 90% or above 105%. The orders are usually on a county-, city-, or township-wide basis for a particular classification of property. All State Board Orders must be implemented by the county. The changes will be made to the current assessment under consideration, for taxes payable the following year.

The equalization process (including issuing State Board Orders) is designed not only to equalize values on a county-, town-, or city-wide basis, but also to equalize values across county lines to ensure a fair valuation process across taxing districts, county lines, and property types. State Board Orders are implemented only after a review of values and sales ratios and discussions with the county assessors in the county affected by the State Board Orders, county assessors in adjacent counties, and the department.

A separate 9-month study is used by the Tax Court and is based on sales occurring between January 1 and September 30 of a given year. It is the same as the 12-month study, but excludes the sales from October, November, and December.

21-Month Study

The purpose of the 21-month study is to adjust values used for state aid calculations so that all jurisdictions across the state are equalized. In order to build stability into the system, a longer term of 21 months is used, which allows for a greater number of sales. While the 9- and 12-month studies compare the actual sales to the assessor's *estimated* market value, the 21-month study compares actual sales to the assessor's *taxable* market value. As with the 9- and 12-month studies, the sale prices are adjusted for time and terms of financing.

The 21-month study is used to calculate adjusted net tax capacities that are used in the foundation aid formula for school funding. It is also used to calculate tax capacities for Local Government Aid (LGA) and various smaller aids such as library aid. This study is also used by bonding companies to rate the fiscal capacity of different governmental jurisdictions.

The adjusted net tax capacity is used to eliminate differences in levels of assessment between taxing jurisdictions for state aid distributions. All property is meant to be valued at its selling price in an open

market, but many factors make that goal hard to achieve. The sales ratio study can be used to eliminate differences caused by local markets or assessment practices.

The adjusted net tax capacity is calculated by dividing the net tax capacity of a class of property by the sales ratio for the class. For example, the net tax capacity for residential properties is divided by the residential sales ratio to produce the residential adjusted net tax capacity. The process would be repeated for all of the property types. The total adjusted net tax capacity would be used in state aid calculations.

Appendix C – Classification Rates (2021 Assessment)

Class	Description	Tiers	Class Rate	State General Rate
1a	Residential Homestead	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
1b	Homestead of Persons who are Blind/Disabled [classified as 1a or 2a] [classified as 1a or 2a]	First \$50,000	0.45%	N/A
		\$50,000 - \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
1c	Homestead Resort	First \$600,000	0.50%	N/A
		\$600,000 - \$2,300,000	1.00%	N/A
		Over \$2,300,000	1.25%	1.25%
1d	Housing for Seasonal Workers	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
2a	Agricultural Homestead - House, Garage, 1 Acre (HGA)	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
2a/2b	Agricultural Homestead - First Tier	First \$1,890,000	0.50%	N/A
2a/2b	Farm Entities Excess First Tier	Unused First Tier	0.50%	N/A
2a	Agricultural - Nonhomestead or Excess First Tier		1.00%	N/A
2b	Rural Vacant Land		1.00%	N/A
2c	Managed Forest Land		0.65%	N/A
2d	Private Airport		1.00%	N/A
2e	Commercial Aggregate Deposit		1.00%	N/A
3a	Commercial/Industrial/Utility (<i>not including utility machinery</i>)	First \$100,000	1.50%	N/A
		\$100,000 - \$150,000	1.50%	1.50%
		Over \$150,000	2.00%	2.00%
		Electric Generation Public Utility Machinery	2.00%	N/A
		All Other Public Utility Machinery	2.00%	2.00%
		Transmission Line Right-of-Way	2.00%	2.00%
4a	Residential Nonhomestead 4+ Units		1.25%	N/A
4b(1)	Residential Non-Homestead 1-3 Units		1.25%	N/A
4b(2)	Unclassified Manufactured Home		1.25%	N/A
4b(3)	Agricultural Non-Homestead Residence (2-3 units)		1.25%	N/A
4b(4)	Unimproved Residential Land		1.25%	N/A
4bb(1)	Residential Non-Homestead Single Unit	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
4bb(2)	Agricultural Non-Homestead Single Unit - (HGA)	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
4bb(3)	Condominium Storage Unit	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
4c(1)	Seasonal Residential Recreational Commercial (resort)	First \$500,000	1.00%	1.00%
		Over \$500,000	1.25%	1.25%

Class	Description	Tiers	Class Rate	State General Rate
4c(2)	Qualifying Golf Course		1.25%	N/A
4c(3)(i)	Non-Profit Community Service Org. (non-revenue)		1.50%	N/A
	Congressionally Chartered Veterans Organization (non-revenue)		1.00%	N/A
4c(3)(ii)	Non-Profit Community Service Org. (donations)		1.50%	1.50%
	Congressionally Chartered Veterans Organization (donations)		1.00%	1.00%
4c(4)	Post-Secondary Student Housing		1.00%	N/A
4c(5)(i)	Manufactured Home Park		1.25%	N/A
4c(5)(ii)	Manufactured Home Park (>50% owner-occupied)		0.75%	N/A
4c(5)(ii)	Manufactured Home Park (50% or less owner-occupied)		1.00%	N/A
4c(5)(iii)	Class I Manufactured Home Park		1.00%	N/A
4c(6)	Metro Non-Profit Recreational Property		1.25%	N/A
4c(7)	Certain Non-Comm. Aircraft Hangars and Land (leased land)		1.50%	N/A
4c(8)	Certain Non-Comm. Aircraft Hangars and Land (private land)		1.50%	N/A
4c(9)	Bed & Breakfast		1.25%	N/A
4c(10)	Seasonal Restaurant on a Lake		1.25%	N/A
4c(11)	Marina	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
4c(12)	Seasonal Residential Recreational Non-Commercial	First \$76,000	1.00%	0.40%
		\$76,000 - \$500,000	1.00%	1.00%
		Over \$500,000	1.25%	1.25%
4d	Low Income Rental Housing (Per Unit)	First \$162,000	0.75%	N/A
		Over \$162,000	0.25%	N/A
5(1)	Unmined Iron Ore and Low-Grade Iron-Bearing Formations		2.00%	2.00%
5(2)	All Other Property		2.00%	N/A

Appendix D – Green Acres and Rural Preserve Values

The Minnesota Agricultural Property Tax Law (referred to as “Green Acres”) helps insulate farm owners from rising land values due to non-agricultural influences on the land – such as nearby residential and commercial development, or seasonal cabin and resort properties.

Property enrolled in the Green Acres program is valued at its agricultural value rather than its highest and best use value (which may be impacted by development pressures). This provides a lower taxable value for qualifying properties and redistributes the tax burden to other properties in the same jurisdiction.

Only property classified as class 2a agricultural land under Minnesota Statutes section 273.13, subdivision 23 can qualify for Green Acres, and at least 10 contiguous acres must be used (unless it is a qualifying nursery or greenhouse).

Green Acres is a property tax deferral program. When a property is sold, transferred, or no longer qualifies for the program, the owner has to pay the difference in tax for the last three years of enrollment. When a property enrolled in Green Acres is sold to another person who may qualify for the program, the new owner must apply to the county assessor within 30 days of the purchase for the program to continue on the property.

Taxable Green Acres Value

Green Acres requires assessors to look at qualifying agricultural property in two ways.

- First, the assessor must value the property according to its highest and best use (as is done for all properties). This may include non-agricultural value influences.
- Then the assessor must determine the agricultural value of the property based on Department of Revenue guidance.
- If the agricultural value is below the highest and best use value, the assessor must use the agricultural value for tax purposes.

The Minnesota Department of Revenue establishes agricultural land values throughout the state in consultation with the University of Minnesota. (See Minnesota Statutes, section 273.111, subdivision 4.)

Analyzing Agricultural Sales

To establish these agricultural values, the department examines sales of agricultural land throughout the state. (See Minnesota Statutes, section 273.111, subdivision 4.)

The department looks at agricultural sales in each of the 87 counties to determine Green Acres values that reflect the agricultural economy in general. When determining Green Acres values, the department attempts to identify pure agricultural sales – sales that were not influenced by developmental pressure or other non-agricultural factors.

To identify pure agricultural sales, the department identifies areas where development pressure may affect the sale price of agricultural land. Properties from these areas are removed from the sales data. The remaining sales are used to determine Green Acres values for tillable and non-tillable land in each county.

Identifying Areas with Non-Agricultural Influences

The department identified three variables that may indicate non-agricultural influences in a particular area, city, or town:

- Change in number of households
- Newly created non-agricultural parcels
- Annexations to cities and towns

These variables indicate the change in the previous three years for each city or town in Minnesota.¹¹ Each variable is assigned a threshold that may indicate development pressure:

- More than five households in a city or town
- More than five new non-agricultural parcels in a city or town
- Any annexations (for all cities and towns in and surrounding the annexation)

Agricultural sales in areas that meet any two of the thresholds are flagged as sales with potential non-agricultural influence. These sales are referred to the department's regional Property Tax Compliance Officers (PTCOs) for further review.

Whenever a PTCO confirms that non-agricultural influence may have affected the price of a sale, it is removed from the sales data used to determine the Green Acres value. Sales are also removed if they include land on a lake or river, include non-agricultural land, or represent outliers in the data.

Determining Agricultural Values

After sales with potential non-agricultural influences are removed from the sales data, the remaining sales are used to determine each county's agricultural value, used for Green Acres purposes.

These values are calculated using a basic regression and the county's sales data from the previous 12 months – sale prices, tillable acres, and non-tillable acres. This regression estimates a value per acre for tillable land (β_1) and non-tillable land (β_2).

$$\text{Sale Price} = \beta_1 * \text{Tillable Acres} + \beta_2 * \text{Non - Tillable Acres}$$

Equation 2

The size and representativeness of sales data can vary by county and year to year. As a result, the Green Acres values calculated with a county's data for the previous 12 months may not always be reliable.

To get more data, the regression is run using two additional data sets: the previous 21 months of sales in each county and the previous 12 months of sales in each agricultural region. If a county's 12-month value is questionable, the additional results are considered, prioritizing the 21-month results for the county over the 21-month results for the agricultural regions.

¹¹ Data for the three variables comes from the Minnesota State Demographic Center, Metropolitan Council, Market Value by Parcel File, and Minnesota Geospatial Information Office.

If all three regressions fail to yield a consistent Green Acres value, the Property Tax Division’s staff sets Green Acres values based on surrounding counties, counties with similar agricultural markets, and previous years’ Green Acres values.

Rural Preserve

The Rural Preserve Property Tax Program complements Green Acres and provides similar property tax benefits for class 2b rural vacant land that is part of a contiguous farm enrolled in Green Acres (see Minnesota Statutes, section 273.114).

As with Green Acres, a portion of taxable value is deferred for qualifying land while it is enrolled in the program. The assessor determines two values for the land: a “highest and best use value” based on market conditions, and a value that is uninfluenced by non-agricultural factors such as residential or commercial development. The assessor must use whichever value is lower for property tax purposes.

This provides a lower taxable value for qualifying properties and redistributes the tax burden to other properties in the same jurisdiction. When a property is sold, transferred, or no longer qualifies for the program, the owner has to pay the difference in tax for the last three years of enrollment.

Taxable Rural Preserve Value

Rural Preserve values may be different than Green Acres values. Each year, the department issues a memo to notify counties of their Green Acres values for tillable and non-tillable agricultural lands. The department urges counties to use the following guidelines to calculate Rural Preserve values:

- For otherwise tillable lands, use the Green Acres tillable land value.
- For non-tillable lands that are otherwise pastureable, use their non-tillable Green Acres value.
- For unusable waste, wild land, swamp land, etc., use 50% of the **non-tillable** Green Acres value.

Examples

1. If the county has estimated the value of woods at \$2500 per acre because of recreational or other non-agricultural value influences, and the value for Rural Preserve is \$2200, the deferral is based on the \$300 per acre difference.
2. If a county has estimated the value of a swamp at \$1800 per acre because of recreational or other non-agricultural market value influences, and the value for Rural Preserve is \$2200, then the recommended Rural Preserve value for the **unusable** swamp land is \$1100 per acre (50% of \$2200), and the deferral is based on the \$700 difference in value.
3. If a county has valued a swamp at \$900 per acre due to lack of non-agricultural market influences, and the recommended value for Rural Preserve is \$2200 and 50% of that value is \$1100, there is no deferral. (The property may still be enrolled in the program, but the tax deferral only applies if the EMV set by the county exceeds the Rural Preserve value.)

Unusable wasteland often carries a very low estimated market value, which may not be high enough to receive a tax deferral under Rural Preserve (as shown in Example 3 above). However, there may be some areas of the state where recreational uses are affecting the market value of these unusable wastelands that are part of a farm.

County Average Value Per Acre – Assessment Year 2021

County	Tillable Value	Non-Tillable Value
Aitkin	1,300	900
Anoka	3,300	2,000
Becker	3,300	1,400
Beltrami	1,300	1,200
Benton	3,400	1,600
Big Stone	5,300	1,400
Blue Earth	7,700	1,700
Brown	6,800	1,600
Carlton	1,400	1,100
Carver	6,900	2,400
Cass	2,000	1,400
Chippewa	6,600	1,400
Chisago	3,000	2,200
Clay	4,200	1,200
Clearwater	1,300	1,000
Cook	800	800
Cottonwood	7,500	1,400
Crow Wing	2,300	1,400
Dakota	7,500	2,500
Dodge	7,700	2,000
Douglas	3,700	1,700
Faribault	7,100	1,400
Fillmore	6,200	2,400
Freeborn	6,300	1,400
Goodhue	7,100	2,400
Grant	5,100	1,700
Hennepin	7,200	2,500
Houston	5,200	2,600
Hubbard	2,400	1,600
Isanti	3,400	2,000
Itasca	1,200	1,000
Jackson	7,300	1,400
Kanabec	2,500	1,100
Kandiyohi	6,300	1,400
Kittson	2,500	800
Koochiching	800	800
Lac Qui Parle	5,300	1,400
Lake	900	800

County	Tillable Value	Non-Tillable Value
Lake of the Woods	1,000	800
Le Sueur	7,100	2,500
Lincoln	5,100	1,400
Lyon	6,100	1,400
Mcleod	6,500	1,800
Mahnomen	3,400	1,000
Marshall	2,100	800
Martin	7,500	1,400
Meeker	4,700	1,600
Mille Lacs	2,900	1,100
Morrison	3,100	1,400
Mower	7,100	1,400
Murray	6,500	1,400
Nicollet	7,500	1,800
Nobles	7,800	1,600
Norman	3,400	1,000
Olmsted	6,200	2,300
Otter Tail	2,900	1,400
Pennington	2,000	900
Pine	1,700	1,200
Pipestone	6,900	2,100
Polk	3,800	900
Pope	4,100	1,700
Ramsey	7,000	2,500
Red Lake	2,300	900
Redwood	6,800	1,500
Renville	6,700	1,400
Rice	6,700	2,500
Rock	9,000	2,100
Roseau	1,200	800
St. Louis	1,000	800
Scott	7,200	2,500
Sherburne	3,600	1,800
Sibley	7,000	1,900
Stearns	5,000	2,100
Steele	6,500	1,600
Stevens	5,500	1,500
Swift	5,900	1,400
Todd	2,500	1,600
Traverse	5,300	1,300
Wabasha	5,900	2,600

County	Tillable Value	Non-Tillable Value
Wadena	1,900	1,400
Waseca	7,300	1,600
Washington	7,000	2,500
Watonwan	7,100	1,400
Wilkin	4,300	1,200
Winona	5,900	2,700
Wright	6,200	2,500
Yellow Medicine	6,300	1,400

Appendix E – Maps: Statewide Market Values and Assessment Practices Indicators

The following pages contain statewide charts and maps with information about Minnesota property values, sales ratio measures, and the Green Acres and Rural Preserve programs.

MAP 1 displays the percent change in estimated market value for each county from assessment years 2020 to 2021.

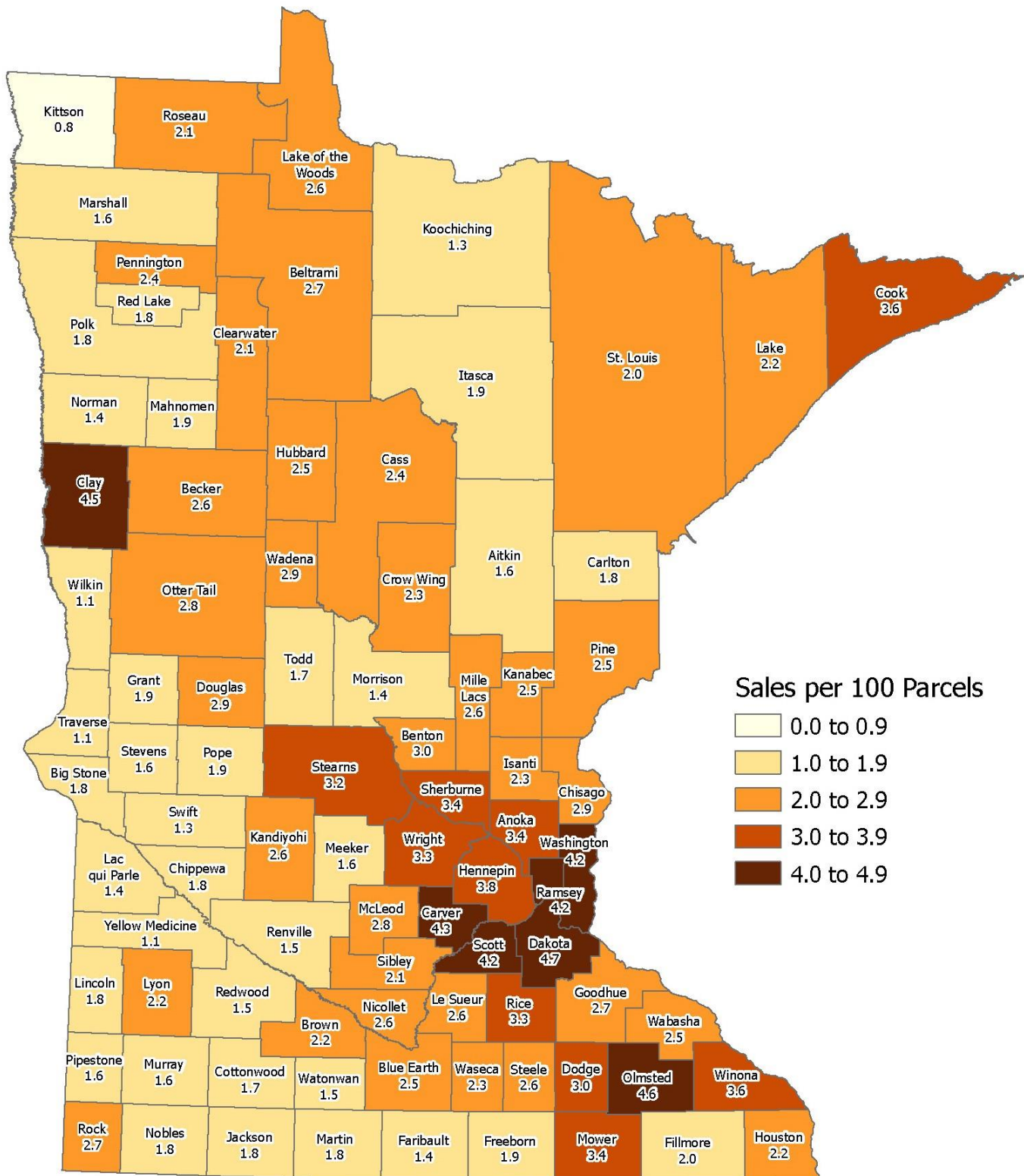
MAP 2 displays the real property sales per 100 parcels for each county for assessment year 2021.

MAP 3 shows taxable tillable Green Acres and Rural Preserve values. Higher taxable values are shown in the southern portion of the state while lower taxable values are shown in the northeastern part of the state.

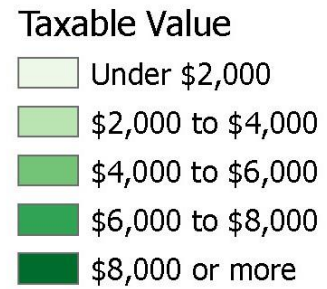
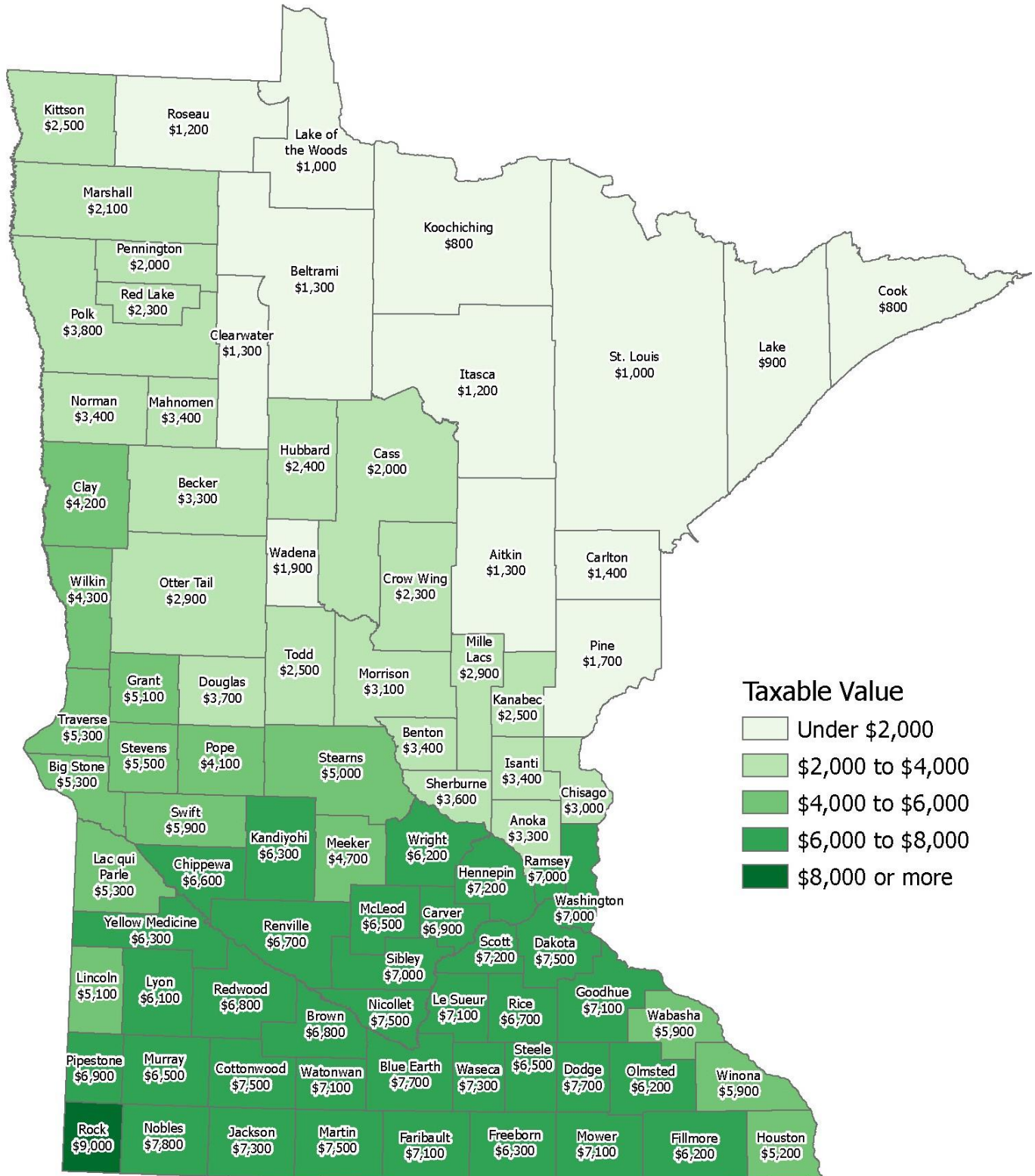
MAP 4 shows taxable non-tillable Green Acres and Rural Preserve values. Values to be used for non-tillable properties enrolled in Green Acres or Rural Preserve do not vary as widely as the values for tillable properties. The non-tillable values are closer to the tillable values in the northern half of the state.

MAP 5 shows the percentage of total county EMV that was added as improvements during the 2021 assessment year.

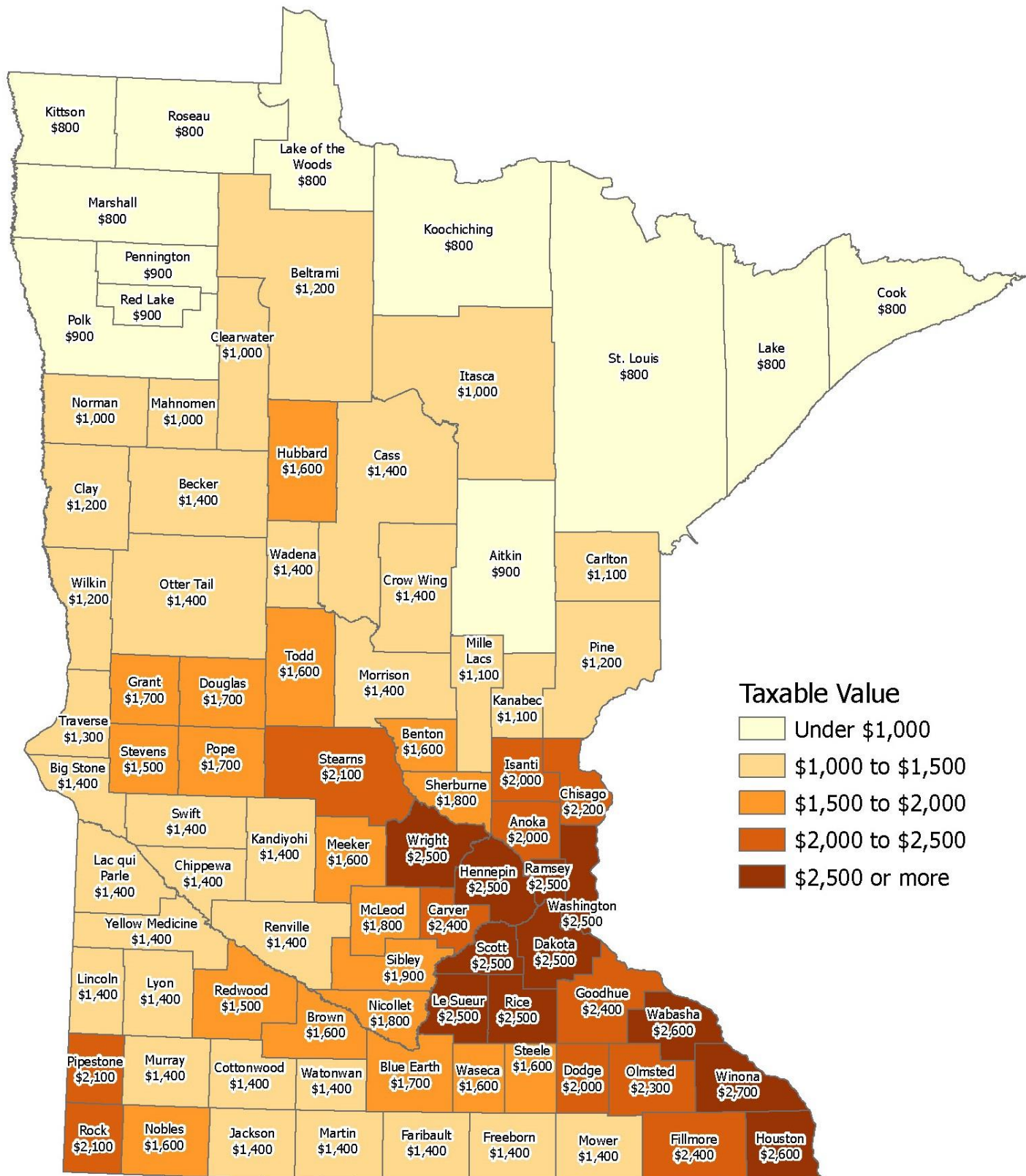
Map 2: Real Property Sales Per 100 Parcels in 2021



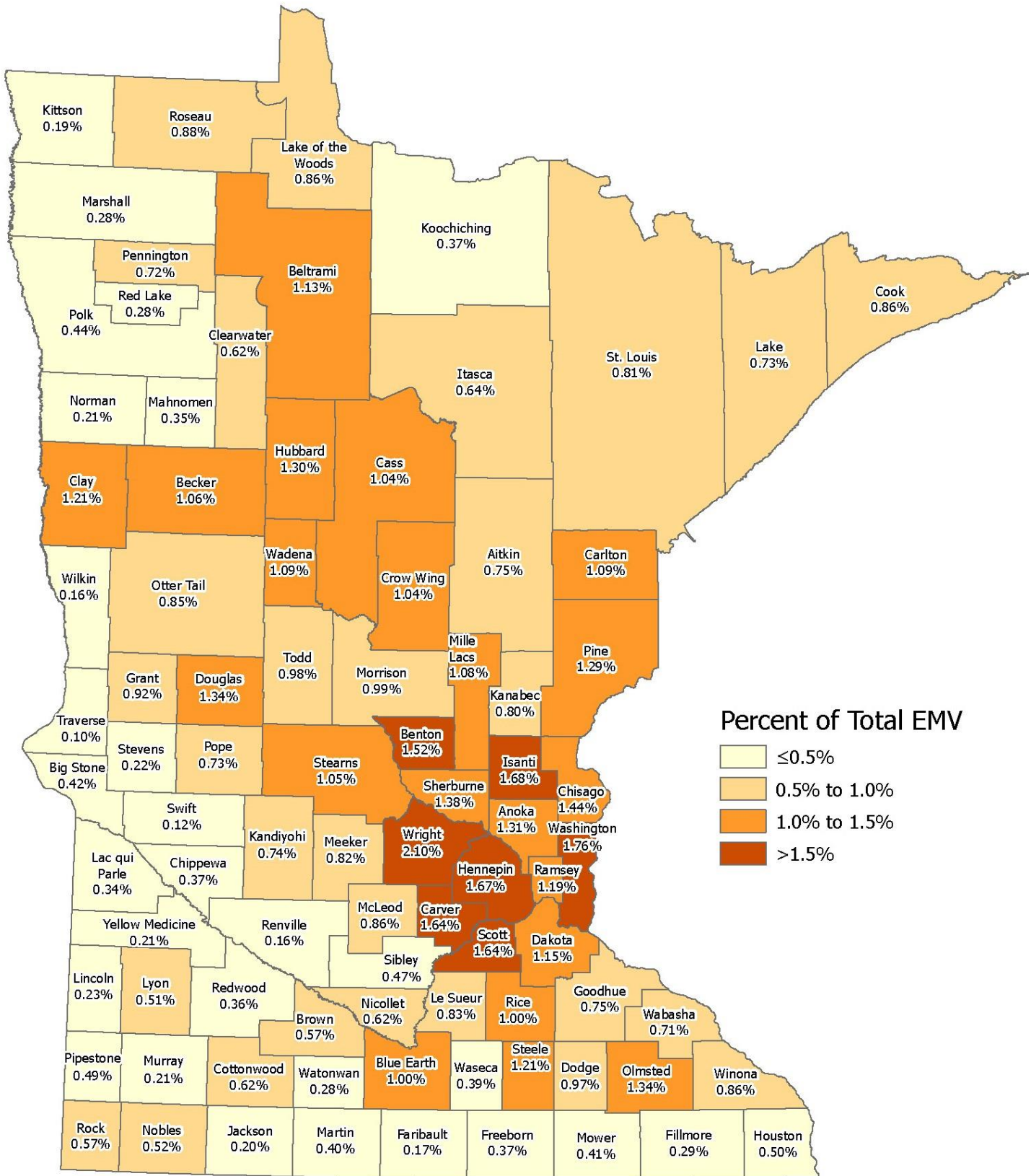
Map 3: Taxable Tillable Green Acres/Rural Preserve Value (2021 Assessment)



Map 4: Taxable Non-Tillable Green Acres and Rural Preserve Value (2021 Assessment)



Map 5: New Construction EMV as a Percentage of Total EMV (2021 Assessment)



Appendix F – Glossary

ADJUSTED MEDIAN RATIO The adjusted median ratio is calculated by multiplying the median ratio by one plus the overall percent change in value made by the local assessor between the prior and current assessment year. The change in assessor’s value is also called local effort.

$$\text{Adjusted Median Ratio} = \text{Median Ratio} \times (1 + \text{Local Effort})$$

Equation 3

CERTIFICATE OF REAL ESTATE VALUE (CRV) A certificate of real estate value must be filed with the county auditor whenever real property is sold or conveyed in Minnesota. Information reported on the CRV includes the sales price, the value of any personal property, if any, included in the sale, and the financial terms of the sale. The CRV is eventually filed with the Property Tax Division of the Minnesota Department of Revenue.

CLASSIFICATION In Minnesota, property is classified according to its use on the assessment date – January 2. The classification system is used to identify a given property’s classification rate, which in turn determines the share of the tax burden borne by that property. There are five main property tax classifications used in Minnesota. However, in reality, the breakdown of property tax classifications includes 44 specific statutory descriptions that result in different class rates based on value tiers and homestead benefits. A classification rate table is shown in Appendix C.

COEFFICIENT OF DISPERSION (COD) The coefficient of dispersion is a measurement of variability (the spread or dispersion) and provides a simple numerical value to describe the distribution of sales ratios in relationship to the median ratio of a group of properties sold. The COD is also known as the “index of assessment inequality” and is the percentage by which the various sales ratios differ, on average, from the median ratio.

ESTIMATED MARKET VALUE (EMV) The estimated market value is the assessor’s estimate of what a property would sell for on the open market with a typically motivated buyer and seller without special financial terms. This is the most probable price, in terms of money, that a property would bring in an open and competitive market. The EMV for a property is finalized on the assessment date, which is Jan. 2 of each year.

MEDIAN RATIO The median ratio is a measure of central tendency. It is the sales ratio that is the midpoint of all ratios. Half of the ratios fall above this point and the other half fall below this point. The median ratio is used for the State Board of Equalization and the Minnesota Tax Court studies after all final adjustments.

NET TAX CAPACITY In Minnesota, property taxes are based on a property’s net tax capacity, which is its taxable market value multiplied by its classification rate.

$$\text{Taxable Market Value} \quad \times \quad \text{Classification Rate} \quad = \quad \text{Net Tax Capacity (NTC)}$$

Equation 4

For example, consider a residential homestead with a Taxable Market Value of \$100,000:

$$\$100,000 \quad \times \quad 1.00\% \quad = \quad \$1,000 \text{ NTC}$$

SALES RATIO A sales ratio is the ratio comparing the market value of a property with the actual sales price of the property. The market value is determined by the county assessor and reported annually to the Department of Revenue. The actual sales price is reported on the Certificate of Real Estate Value (eCRV).

STATE BOARD OF EQUALIZATION The State Board of Equalization consists of the Department of Revenue, who has the power to review sales ratios for counties and make adjustments in order to bring estimated market values within the accepted range of 90 to 105 percent.

STATE BOARD ORDER A state board order is issued by the State Board of Equalization to adjust the market values of certain property within certain jurisdictions.

TAXABLE MARKET VALUE (TMV) The taxable market value is the value that a property is actually taxed on after all limits, deferrals, and exclusions are calculated. It may or may not be the same as the property's estimated market value or limited market value.

TRIMMING METHOD The trimming method used here is to exclude sales with ratios less than 0.5 or greater than 2. This eliminates a few extreme sales that would distort the COD.